



EASTERN RESEARCH GROUP, INC.

M E M O R A N D U M

TO: George Smith, U.S. Environmental Protection Agency

FROM: Chad White, Eastern Research Group

DATE: March 18, 1997

SUBJECT: Final Summary of January 30, 1997, Incinerator Work Group Meeting

1.0 INTRODUCTION AND PURPOSE OF MEETING

The January 30 meeting was the fourth meeting of the Incinerator Work Group for the Industrial Combustion Coordinated Rulemaking (ICCR). The purpose of this meeting was to receive a report on the January 8 and 9 Coordinating Committee meeting, to discuss the information collection plan (ICP), to discuss the scope of the incinerator category, and to discuss the scope of the information collection survey. In addition, at this meeting the Work Group was to select a stakeholder co-chair.

2.0 LOCATION AND DATE

This Work Group meeting was held in Research Triangle Park, North Carolina, at the EPA's Environmental Research Center from 9:00 am until 4:00 pm on January 30, 1997. A copy of the draft meeting agenda is included as attachment 1.

3.0 ATTENDEES

The Incinerator Work Group meeting was open to the public. Participants at the meeting included representatives of the EPA, industry, State and local governments, and the environmental community. A copy of the attendance list for the meeting is included as attachment 2.

4.0 DISCUSSION

After brief introductions, the Work Group received reports from the Coordinating Committee meeting and discussed the ICP, the scope of the survey, and the scope of the incinerator source category. These discussion topics are summarized in the sections that follow.

4.1 Coordinating Committee Meeting Report

Fred Porter of the EPA provided a brief report from the January 8 and 9, 1997, meeting of the Coordinating Committee. At this meeting the committee decided to do the following:

- establish an ad-hoc information collection subgroup to coordinate and develop an information collection plan (ICP);
- establish an ad-hoc budget subgroup to examine ICCR resources and efficient use of ICCR funds and identify other sources of funding; and
- task the Source Work Groups to provide recommendations on the scope of their source categories and any prioritization for information collection to the Coordinating Committee at the meeting on March 19 and 20, 1997.

In addition to these actions, the Coordinating Committee reached consensus on most of the ICCR document. It was recommended that all participants in the ICCR process become familiar with the section on consensus. It was emphasized that striving for consensus involves looking for common ground and acceptable, if not always ideal, decisions.

As a sidenote, Mr. Porter emphasized that the EPA, like any other organization involved in the ICCR, is one of many participants and should not be expected to take the lead on all tasks. For example, it should not be assumed that the EPA will be responsible for mailing out, collecting, and compiling information from any voluntary ICCR questionnaires.

4.2 Information Collection Subgroup Report

At the December 17 meeting, the Work Group anticipated formation of an ad-hoc group and selected Norman Morrow and Joe Tessitore to be the Incinerator Work Group representatives. Both attended the first subgroup meeting, which was held in Research Triangle Park, North Carolina, on January 22 and 23, 1997. At the January 30 Work Group meeting, Mr. Morrow provided a summary of results of the subgroup activities and the progress on the overall ICP.

4.2.1 Data Needs

Mr. Morrow explained that there are four types of information needed about facilities for the ICCR: population data (i.e., where the facilities are located and how many there are), unit sizes and the waste/fuels burned (to group like units), other facility data to use in developing model plants (information to determine what a "typical" facility is), and emission control data (for use in setting a performance standard). Collection of emission data is a secondary concern after these other data are compiled. Mr. Morrow clarified that at this phase of regulatory development, facility-specific data, as opposed to emission data, need to be collected.

Mr. Morrow pointed out that all information need not come from a questionnaire sent to facilities. He highlighted a couple of examples: fuel data could be collected from the U.S. Department of Energy, or State rules could be used to assume a uniform level of control within a State. The current ICCR database, which is a merge of the AIRS and OTAG databases and source test reports from the STIRS index, contains approximately 120,000 combustion units. Efforts are under way to expand this database by merging data from State databases that was not reported to AIRS or OTAG. The combined State/AIRS/OTAG/STIRS database is scheduled to be completed by the end of March 1997.

Complete information is not available for many of the facilities in the ICCR database. The subgroup examined the apparent data gaps and determined that sufficient population data had been collected for all source categories and that a broad information collection effort was not necessary. However, for boilers, process heaters, and incinerators that combust waste, information needed to characterize the type of waste combusted and unit size was lacking. To address the data gaps, the subgroup determined that a questionnaire should be developed to survey the facilities in the ICCR database with non-fossil fuel/waste-fired boilers, process heaters and/or incinerators.

To coordinate the survey effort, the Information Collection Subgroup decided to form a Combined Survey Task Group which will consist of members of the Boiler, Process Heater and Incinerator Work Groups. The Incinerator Work Group was asked to take the lead in organizing this Task Group. The combined survey would be designed to gather information from the sources already in the ICCR database to focus on waste combustion to fill the identified data gaps.

The goal of the combined survey task is to mail the focused, short survey after the March 19 and 20 Coordinating Committee meeting. The Combined Survey Task Group will present its recommendations to the Boiler, Process Heater and Incinerator Work Groups and will consider their comments before returning a revised survey to the Information Collection Subgroup. The Information Collection Subgroup will, in turn, present the combined survey to the Coordinating Committee at the March meeting.

4.2.2 Work Group Comments

An EPA representative commented to the Work Group that a limited scope of information collection is not equivalent to a regulatory limitation for any of the source categories. An

industry representative concurred that ICCR decisions about collection of information for a particular group of combustion units does not indicate what the EPA may regulate.

An industry representative asked when State regulations will be summarized and available for Work Group review. An EPA representative commented that this will be an issue later in information collection and regulatory development to help set MACT floors.

An industry representative asked if emission data and permit limits should be collected in the combined survey being developed. Another industry representative commented that the Combined Survey Task Group will need to consider this issue. The goal is to keep the questionnaire as short as possible while collecting the necessary information. Recognizing that brevity in the survey will restrict the amount of information collected, it was noted that additional data may need to be collected from some groups later.

A State representative asked whether EPA section 114 authority will be used for the survey. An Information Collection Subgroup representative commented that voluntary information collection efforts are being accommodated. If a survey is sent by a trade organization or other group, section 114 authority will likely not be used. However, any survey sent by the EPA will be done under section 114 authority.

4.2.3 Formation of the Combined Survey Task Group

Dennis Marietta, Paul Rahill, Andy Roth, George Smith and Joe Tessitore volunteered to be members of the Combined Survey Task Group. This Task Group will complete the tasks outlined in the summary from the Information Collection Subgroup meeting on January 22 and 23, 1997¹. Work Group members are encouraged to

¹The subgroup charged the Incinerator Work Group to take the lead in establishing a task group to:

communicate with the members of the Task Group with rationale on the scope of information collection. The Task Group will report back to the Work Group with recommendations electronically (via email).

4.2.4 Work Group Advice for Combined Survey Task Group

The Work Group provided suggestions to the members of the Combined Survey Task to be taken into account when developing a questionnaire. These suggestions are summarized in the bullets below:

- The staff and the operators of the smaller units should be considered when preparing a questionnaire. The form should be easy to understand and use.
- To save time and conserve effort, the existing forms (i.e., the forms developed by the EPA, trade associations, and the Work Groups) should be used as a starting point to generate the questionnaire².
- Codes for wastes should be provided rather than allowing people the latitude to define the waste themselves.
- A format that is easily converted to an electronic file (e.g., a scannable survey) should be used.

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1. develop a questionnaire to survey waste-fired boilers, incinerators, and process heaters, and
 2. recommend which sources in the ICCR database to sample to fill data gaps for the various types of wastes and industries.

This task group will be composed of 2 to 4 members each selected by the incinerator, boilers and process heater Work Group and others as needed to achieve balance. The summary file, adhocsub.wpf, is available from the *Minutes of Previous Meetings* page under the Coordinating Committee section of the ICCR bulletin board on the TTN.

²Examples of questionnaires developed by EPA, trade associations, and Work Groups were handed out at the meeting and are available in attachment 4.

- Even if emission data are not being requested in the questionnaire, facilities should be asked if they have any available test data (i.e., both stack test data and control device inlet data) for the sources being surveyed.
- For purposes of the economic analysis, a description of the process being used or product being produced for which the combustion unit is operated, should be requested.

4.3 Scope of the Incinerator Source Category

Each Work Group is responsible for recommending to the Coordinating Committee the scope of its source category. The Incinerator Work Group discussed the need to identify areas of prioritization for information collection and regulatory development. The discussion of the scope of the incinerator category is summarized in the following sections.

4.3.1 Coordinating Committee Charge

Each Work Group must work to refine the scope of its category and present scoping recommendations to the Coordinating Committee. For example, a number of factors will need to be examined in any scoping recommendations: whether several large units emit a majority of the pollution; whether the source category consists of mostly small units; or whether certain units are covered under other MACT standards. For example, if many units burn low HAP-emitting fuels (e.g., natural gas or clean wood), these units could be assigned a lower priority for examination during regulatory development. Mr. Morrow mentioned that the Process Heater Work Group has begun implementing a scoping approach by defining "indirect-fired" process heaters. In summary, the Incinerator Work Group needs to narrow its scope to focus on those issues that deserve priority attention.

4.3.2 Presentation on Incinerator Data Currently Available

To aid in the scoping of the incinerator source category for the ICCR, Chad White of Eastern Research Group gave a presentation about the incinerator data currently available in the EPA's ICCR database and the ICWI-OSWI inventory. Copies of materials used in this presentation are included as attachment 5.

4.3.3 Handling of Flares in the ICCR

During discussion of the scope of the incinerator category, the Work Group considered whether flares should be included in the ICCR.

An EPA representative explained that the focus of the Combustion Group in the Emission Standards Division (ESD) and of the ICCR is to handle regulatory development for units that are common across industries (e.g., boilers, engines, etc.). Specialized regulations (i.e., regulations for unique industries or equipment) are developed by specialized groups within the ESD. To make the ICCR manageable and to address resource and time limitations, priorities for what should be covered under the ICCR must be established.

The EPA representative acknowledged that there are some outstanding questions regarding flare usage. However, regulation of flares would require special consideration given that many are used for emergency purposes and that unique safety issues would need to be addressed. While some flares emit HAPs, information on flares burning refinery gases indicates relatively low HAP emissions comparable with natural gas. Therefore, considering the emergency nature of many flares as well as what is known about toxic emissions, flares may not be a priority source category in regulatory development.

In response to a question, the EPA representative clarified that the EPA does not believe that a control device should be

exempt from regulation under the ICCR based solely on the fact that it is installed as a control device.

An environmental representative stated that landfill gas flaring could be of concern for HAP emissions. Further, landfill gas could be combusted in a boiler for a portion of a year and sent to flares for another portion of a year. Even if "uncontained gases" were not considered "solid waste," the combustion in boilers could still be regulated under section 112 but may not be for flares if they are not included in the ICCR. An EPA representative responded that the EPA recognizes this possibility but needs to set a priority for handling units. The representative stated that the Work Group may recommend to the Coordinating Committee that another Source Work Group be created to examine flare usage. However, the EPA has budgetary concerns that make formation of another Work Group difficult.

An industry representative commented that to comply with current State or local regulations, pulp and paper mills must use flares to destroy organic gases from their manufacturing processes. The pulp and paper industry has spent significant time and money to test and understand the emissions from these devices. Acknowledging that some toxic pollutants are emitted from flares, the industry representative urged the Work Group to consider that the flares significantly reduce otherwise uncontrolled toxic emissions. Another industry representative commented that during development of the Petroleum Refineries NESHAP, control device emissions and the associated health and economic benefits were assessed. It was decided that the combustion emissions and other losses were small debits with respect to the benefits of their use.

An environmental representative suggested that the composition of the gas stream being sent to the flare may be more important to consider than the flare design. Combustion of some

gas streams in flares may produce emissions that are greater in toxicity than the components in the flare feed stream.

An industry representative suggested that if emissions sources are encountered that the Work Group believes should be considered, but are beyond the scope of the ICCR, recommendations be made to the EPA to examine the units separately. An industry representative suggested that flares not be called out as a separate category but be considered as air pollution control devices. The representative suggested that the units be addressed when the units they control are considered for regulation. Another industry representative concurred and encouraged the Work Group to look for areas where the biggest emission reduction can be achieved.

Another representative suggested that examination of flares is beyond the expertise of the Work Group. The representative suggested that this source category be noted as a potential concern but not included in current data collection.

An industry representative asked for consensus not to collect information on flares. An environmental representative said that he could not agree to this decision because the Work Group has not considered the emission characteristics for these units.

No group consensus was reached on this issue. Instead, the Work Group decided that the handling of flares within the ICCR should be investigated further by the Scope Subgroup, which is the subject of section 4.3.6.

4.3.4 Contained Gas

The Work Group asked about the status of the section 129 definition of "solid waste" and "contained gas" and asked the EPA to speculate about the effect of this definition on the rules being developed. An EPA representative commented that the EPA is likely to conclude that a "contained gas," as related to the

definition of a "solid waste," refers to gases in cylinders, barrels, or other containers and not to gas in pipelines or other transport media. However, even if "uncontained gases" (i.e., gas in pipelines, etc.) are not considered to be "solid waste" and are, therefore, not subject to regulation under section 129, these gases could still be examined under RCRA or section 112.

4.3.5 Incinerator Size

Ruth Mead of Eastern Research Group presented the group with information from the medical waste incinerator (MWI) regulatory development project. Although MWIs are not included in the ICCR, the information was presented to illustrate trends for incinerator population versus incinerator size and incinerator emissions for the MWI source category. The materials presented show that a small number of large incinerators are the source of a majority of the air emissions. This trend suggests that a size cut-off for incinerators may be desirable, if information on waste incinerators shows the same trend. Copies of the materials presented are in attachment 6.

An industry representative commented that a size cut-off for information collection and the source category is likely to make sense. It was suggested that the Work Group investigate the *de minimis* for small quantity generators for hazardous waste, but a State representative responded that the hazardous waste rules don't have a *de minimis*, just exemptions. Another State Representative said that in Montgomery County, Ohio, the State of Ohio found that small PVC Pyrolyzers had more variations in dioxin emissions than larger units. The representative noted that size cut-offs should be based on emission levels and that a size cut-off could inappropriately exclude these units which could be a significant source of HAPs. An industry representative agreed and stated that the Work Group does not

currently have enough size or waste information to determine the appropriate exclusions.

A State representative suggested that, because of the ICWI litigation, a size cut-off may not be a concern that can be easily dismissed. An EPA representative agreed and pointed out that, in addition to the lack of a size cut-off in section 129, the public may respond poorly to establishment of a *de minimis* for the category. An environmental representative suggested that the public is more concerned with the toxicity of emissions as opposed to a size cut-off.

To collect information similar to that presented by MWIs, another industry representative suggested that the Work Group contact vendors of incineration equipment.

The Work Group concurred that it is premature to select any size cut-off without further information. They recommended that the survey being sent to incinerators should not include a lower size cut-off so that necessary information will be collected.

4.3.6 Formation of Scope Subgroup

In response to the discussion of the scope of the source category, the Work Group decided to form a Scope Subgroup to document the arguments of those units that should be of lower priority or should be addressed by the EPA under other rulemakings. Tony Licata, Jeff Shumaker, George Smith and Bill Wiley volunteered to be members of the Scope Subgroup. The subgroup will report back to the Work Group with recommendations electronically (via email). Further discussion on this topic can be held at the March 11 Incinerator Work Group meeting.

4.4 Update on the ICWI Litigation

An EPA representative explained that the Coordinating Committee recognized the EPA's obligation to fulfill the requirements of the ICWI court order. EPA representatives will

be meeting with the litigants in February to discuss the progress of the ICCR and may need to conduct information collection on its own. However, the EPA has agreed to inform the Coordinating Committee before taking any action.

4.5 Selection of the Work Group Stakeholder Co-chair

Norman Morrow and Jeff Shumaker were chosen by consensus as the Work Group Stakeholder Co-chair and Work Group Stakeholder Co-chair Alternate, respectively.

5.0 ACTION ITEMS

Paul Rahill will investigate meeting accommodations in Orlando, Florida, for the March 11 Work Group meeting and will coordinate with George Smith on this task.

The ICCR database will be merged with State databases and the ICWI-OSWI Inventory by the end of March 1997. ERG will work to develop a version of the database that can be used by those who do not have Microsoft Access 2.0.

6.0 NEXT MEETINGS

The next Incinerator Work Group meeting was scheduled for Tuesday, March 11, 1997, and will be held in Orlando, Florida. Meetings dates were reconfirmed for April 23, June 4, July 16, and September 10. The Work Group tentatively decided that the meetings on April 23 and June 4 will be held in the Research Triangle Park, North Carolina, area.

The Combined Survey Task Group scheduled its first meeting via teleconference on February 6 at 2 pm EST (Incinerator Work Group members only). A second task group meeting will be held in Orlando on February 13, 1997 for the entire task group, including representatives of the Boiler, Process Heater and Incinerator Work Groups.

The Scope Subgroup scheduled its first meeting via teleconference on February 3, 1997.

These minutes represent an accurate description of matters discussed and conclusions reached and include a copy of all reports received, issued, or approved at the January 30, 1997, of the Incinerator Work Group. George Smith, EPA Co-chair.

ATTACHMENTS

Attachment 1: Draft Meeting Agenda

Attachment 2: Meeting Attendees

Attachment 3: Incinerator Work Group Membership List

Attachment 4: Presentation Material About Currently Available
Incinerator Data

(Note: Not all of the documents distributed in conjunction with this presentation are available electronically, but are available in hard-copy format in the EPA docket.)

Attachment 5: Presentation Material Illustrating Incinerator
Trends

(Note: The documents distributed in conjunction with this presentation are not available electronically, but are available in hard-copy format in the EPA docket. The presentation materials depict (with graphs) the relationship between incinerator size, incinerator population, and total emissions for the Medical Waste Incinerator source category, which is regulated by the EPA under a separate section 129 rule.)

Attachment 6: Draft Information Collection Questionnaires

(Note: The questionnaires distributed at the meeting have not been reproduced in this document electronically, but are available in hard-copy format in the EPA docket.)

Attachment 1: Draft Meeting Agenda

INCINERATOR WORK GROUP MEETING
January 30, 1997
9am-5pm (sharp)
ERC Auditorium, Research Triangle Park, NC

- 9:00-9:10am INTRODUCTION AND WELCOME
- 9:10-9:40am REPORT ON JANUARY 8-9 COORDINATING COMMITTEE MEETING (Fred Porter)
- Established an ad-hoc subgroup on information collection;
 - established an ad-hoc subgroup on the budget;
 - directed Source Work Groups to discuss survey scope recommendations and provide a rationale to the Coordinating Committee.
- 9:40-10:20am INFORMATION COLLECTION PLAN
- Report from ad-hoc subgroup about the information collection plan (Norman Morrow/Joe Tessitore);
 - discuss survey and information collection from other sources (e.g., vendors);
 - provide any feedback to ad-hoc subgroup representatives (Norm and Joe) on the information collection plan.
- 10:20-10:30am BREAK
- 10:30-11:00am CONTINUED DISCUSSION ON INFORMATION COLLECTION PLAN
- 11:00-11:30am PRELIMINARY IDENTIFICATION OF TYPES OF INCINERATORS AND WASTE THAT MAY BE CONSIDERED BY THE INCINERATOR WORK GROUP

- Summary of data from current EPA database of emission sources (presentation by ERG).

Attachment 1: Draft Meeting Agenda (continued)

INCINERATOR WORK GROUP MEETING
January 30, 1997
(continued)

11:30-12:30pm LUNCH

12:30-2:00pm SCOPE OF SURVEY/INFORMATION COLLECTION

- Identify action items and/or form a subgroup to develop recommendations on the survey scope with a supporting rationale prior to the March 19-20 Coordinating Committee meeting regarding:
 - contained gases
 - waste gas incineration
(e.g., flares, thermal oxidizers, etc.)
 - unit size
 - coverage under other MACT standards.

2:00-2:15pm BREAK

2:15-3:00pm CONTINUED DISCUSSION OF SCOPE OF SURVEY AND
INFORMATION COLLECTION

3:00-3:30pm SELECTION OF STAKEHOLDER CO-CHAIR AND CO-CHAIR
ALTERNATE

3:30-3:45pm NEXT MEETING

3:45-4:00pm APPROVAL OF FLASH MINUTES

Attachment 2: Meeting Attendees

Name	Affiliation
Sarah Alston	Glaxo Wellcome, Inc.
Sandra Birckhead	Glaxo Wellcome, Inc.
Jim Eddinger	U.S. EPA/OAQPS
Terry Harrison	U.S. EPA/OAQPS
John Huyler	The Keystone Center
Tony Licata	Licata Energy and Environmental Consultants
Dennis Marietta	La-Z-Boy Chair Company
Ruth Mead	Eastern Research Group, Inc.
Dave Maddox	Stanley Furniture Company, Inc.
Norman Morrow	Exxon Chemical Americas
Bill Perdue	Pulaski Furniture Company, Inc.
Fred Porter	U.S. EPA/OAQPS
Paul Rahill	Industrial Equipment and Engineering Company
John Ramsey	Kansas Department of Health and Environment
Andrew Roth	Regional Air Pollution Control Agency (Dayton, Ohio)
Kay Rykowski	Harding Lawson Associates
Jeff Shumaker	International Paper
George Smith	U.S. EPA/OAQPS
Joe Tessitore	Harding Lawson Associates
Larry Thompson	Cornell University, College of Veterinary Medicine
Dick Van Frank	National Audubon Society
Dale Walter	Industrial Equipment and Engineering Company
Chad White	Eastern Research Group, Inc.
William Wiley	Consumat Systems, Inc.

Attachment 3: Incinerator Work Group Membership List

Industrial Combustion Coordinated Rulemaking
Incinerator Work Group Membership
as of February 5, 1997 (25 Members, 1 Alternate)

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Note: Stakeholder Co-Chair is to be determined

Attachment 4: Presentation Material About Currently Available
Incinerator Data

Not all of the documents distributed in conjunction with this presentation are available electronically, but are available in hard-copy format in the EPA docket. The presentation materials not reproduced in this file include the following:

- presentation graphs; these are available off the Incinerator Work Group bulletin board (on the TTN) in the Excel spreadsheet titled CHARTS.XLS;
- a list of 2-digit Standard Industrial Classifications (SICs) downloaded from www.osha.gov/cgi-bin/sic/sicser5;
- a list of industries and waste types compiled for the ICWI category; this list contains SIC grouping for ICWIs based on previous EPA data collection efforts; and
- a list of codes used to compile data under the OSWI-ICWI Inventory.

INCINERATORS

Data Compiled

- > 4,400 incinerators in the ICCR database from the merging of AIRS and OTAG.
- > 4000 incinerators in the ICWI-OSWI inventory.
- Data is currently being merged. Some facilities are duplicates.

Data Details

- The ICCR database contains many SICs, but a majority of the units came from < 10 SICs.
- Lacking size information.
- Control information is available for:
 - 1,646 units in ICCR database
 - > 1,600 units in ICWI-OSWI inventory.
- STIRS: 195 test reports for toxics.

Fuel and Waste Types

- Industrial/Commercial Waste
- Commercial/Institutional Waste
- Pathological/Crematory Waste
- Municipal-type Solid Waste
- Wood
- Other

INCINERATORS (continued)

Distribution of Incinerators By Waste Types (ICWI-OSWI Inventory)

Type of Waste	No. of Units	No. of Plants
Small MWC	1467	1178
Pathological	863	761
Wood, C/D	706	631
ICWI	472	375
Crematory	440	345
Agricultural	73	29
Soil Treatment	12	12

Note: These units are likely to overlap with incinerators and boilers in the ICCR database.

Summary

- This is the least-defined source category.
- The database contains a large number of units representing a range of fuels/wastes and SICs.
- The current data has limited information on fuel/waste characteristics and unit sizes.

Possible Incinerators in ICCR Database

SCC Code	Description	Number of Units
30190011	Industrial Processes, Chemical Manufacturing, Fuel Fired Equipment, Distillate Oil (No. 2): Incinerators	2
30190012	Industrial Processes, Chemical Manufacturing, Fuel Fired Equipment, Residual Oil: Incinerators	4
30190013	Industrial Processes, Chemical Manufacturing, Fuel Fired Equipment, Natural Gas: Incinerators	104
30190014	Industrial Processes, Chemical Manufacturing, Fuel Fired Equipment, Process Gas: Incinerators	33
30390013	Industrial Processes, Primary Metal Production, Fuel Fired Equipment, Natural Gas: Incinerators	3
30390014	Industrial Processes, Primary Metal Production, Fuel Fired Equipment, Process Gas: Incinerators	1
30400208	Industrial Processes, Secondary Metal Production, Copper, Wire Burning: Incinerator	26
30400232	Industrial Processes, Secondary Metal Production, Copper, Wire Incinerator	14
30490013	Industrial Processes, Secondary Metal Production, Fuel Fired Equipment, Natural Gas: Incinerators	14
30590011	Industrial Processes, Mineral Products, Fuel Fired Equipment, Distillate Oil (No. 2): Incinerators	6
30590013	Industrial Processes, Mineral Products, Fuel Fired Equipment, Natural Gas: Incinerators	11
30609901	Industrial Processes, Petroleum Industry, Incinerators, Distillate Oil (No. 2)	1
30609902	Industrial Processes, Petroleum Industry, Incinerators, Residual Oil	3
30609903	Industrial Processes, Petroleum Industry, Incinerators, Natural Gas	31

Possible Incinerators in ICCR Database (Continued)

SCC Code	Description	Number of Units
30609904	Industrial Processes, Petroleum Industry, Incinerators, Process Gas	39
30609905	Industrial Processes, Petroleum Industry, Incinerators, Liquified Petroleum Gas	1
30790012	Industrial Processes, Pulp and Paper and Wood Products, Fuel Fired Equipment, Residual Oil: Incinerators	1
30790013	Industrial Processes, Pulp and Paper and Wood Products, Fuel Fired Equipment, Natural Gas: Incinerators	24
30990012	Industrial Processes, Fabricated Metal Products, Fuel Fired Equipment, Residual Oil: Incinerators	2
30990013	Industrial Processes, Fabricated Metal Products, Fuel Fired Equipment, Natural Gas: Incinerators	26
31307001	Industrial Processes, Electrical Equipment, Electrical Windings Reclamation, Single Chamber Incinerator/Oven	42
31307002	Industrial Processes, Electrical Equipment, Electrical Windings Reclamation, Multiple Chamber Incinerator/Oven	29
39990011	Industrial Processes, Miscellaneous Manufacturing Industries, Miscellaneous Manufacturing Industries, Distillate Oil (No. 2): Incinerators	4
39990013	Industrial Processes, Miscellaneous Manufacturing Industries, Miscellaneous Manufacturing Industries, Natural Gas: Incinerators	61
39990014	Industrial Processes, Miscellaneous Manufacturing Industries, Miscellaneous Manufacturing Industries, Process Gas: Incinerators	4
50100101*	Waste Disposal, Solid Waste Disposal - Government, Municipal Incineration, Starved Air: Multiple Chamber	130
50100102*	Waste Disposal, Solid Waste Disposal - Government, Municipal Incineration, Mass Burn: Single Chamber	98
50100103*	Waste Disposal, Solid Waste Disposal - Government, Municipal Incineration, Refuse Derived Fuel	21

Possible Incinerators in ICCR Database (Continued)

SCC Code	Description	Number of Units
50100104*	Waste Disposal, Solid Waste Disposal - Government, Municipal Incineration, Mass Burn Refractory Wall Combustor	2
50100105*	Waste Disposal, Solid Waste Disposal - Government, Municipal Incineration, Mass Burn Waterwall Combustor	2
50100410	Waste Disposal, Solid Waste Disposal - Government, Landfill Dump, Waste Gas Destruction: Waste Gas Flares	8
50100505	Waste Disposal, Solid Waste Disposal - Government, Other Incineration, Pathological	133
50100506**	Waste Disposal, Solid Waste Disposal - Government, Other Incineration, Sludge	111
50100507	Waste Disposal, Solid Waste Disposal - Government, Other Incineration, Conical Design (Tee Pee) Municipal Refuse	6
50100508	Waste Disposal, Solid Waste Disposal - Government, Other Incineration, Conical Design (Tee Pee) Wood Refuse	9
50100510	Waste Disposal, Solid Waste Disposal - Government, Other Incineration, Trench Burner: Wood	5
50100511	Waste Disposal, Solid Waste Disposal - Government, Other Incineration, Trench Burner: Tires	1
50100515**	Waste Disposal, Solid Waste Disposal - Government, Other Incineration, Sludge: Multiple Hearth	38
50100516**	Waste Disposal, Solid Waste Disposal - Government, Other Incineration, Sludge: Fluidized Bed	13
50200101	Waste Disposal, Solid Waste Disposal - Commercial/Institutional, Incineration, Multiple Chamber	1098
50200102	Waste Disposal, Solid Waste Disposal - Commercial/Institutional, Incineration, Single Chamber	247
50200103	Waste Disposal, Solid Waste Disposal - Commercial/Institutional, Incineration, Controlled Air	99

Possible Incinerators in ICCR Database (Continued)

SCC Code	Description	Number of Units
50200104	Waste Disposal, Solid Waste Disposal - Commercial/Institutional, Incineration, Conical Design (Tee Pee) Municipal Refuse	16
50200105	Waste Disposal, Solid Waste Disposal - Commercial/Institutional, Incineration, Conical Design (Tee Pee) Wood Refuse	13
50200301	Waste Disposal, Solid Waste Disposal - Commercial/Institutional, Apartment Incineration, Flue Fed	306
50200302	Waste Disposal, Solid Waste Disposal - Commercial/Institutional, Apartment Incineration, Flue Fed with Afterburner and Draft Controls	32
50200504	Waste Disposal, Solid Waste Disposal - Commercial/Institutional, Incineration: Special Purpose, Medical Waste Incinerator	84
50200505	Waste Disposal, Solid Waste Disposal - Commercial/Institutional, Incineration: Special Purpose, Pathological	608
50200506	Waste Disposal, Solid Waste Disposal - Commercial/Institutional, Incineration: Special Purpose, Sludge	62
50200507	Waste Disposal, Solid Waste Disposal - Commercial/Institutional, Incineration: Special Purpose, VOC Contaminated Soil	11
50200601	Waste Disposal, Solid Waste Disposal - Commercial/Institutional, Landfill Dump, Waste Gas Flares ** (Use 5-01-004-10)	27
50300101	Waste Disposal, Solid Waste Disposal - Industrial, Incineration, Multiple Chamber	575
50300102	Waste Disposal, Solid Waste Disposal - Industrial, Incineration, Single Chamber	202
50300103	Waste Disposal, Solid Waste Disposal - Industrial, Incineration, Controlled Air	97

Possible Incinerators in ICCR Database (Continued)

SCC Code	Description	Number of Units
50300104	Waste Disposal, Solid Waste Disposal - Industrial, Incineration, Conical Design (Tee Pee) Municipal Refuse	5
50300105	Waste Disposal, Solid Waste Disposal - Industrial, Incineration, Conical Design (Tee Pee) Wood Refuse	79
50300106	Waste Disposal, Solid Waste Disposal - Industrial, Incineration, Trench Burner: Wood	17
50300108	Waste Disposal, Solid Waste Disposal - Industrial, Incineration, Auto Body Components	3
50300114***	Waste Disposal, Solid Waste Disposal - Industrial, Incineration, Modular Starved-air Combustor	2
50300506	Waste Disposal, Solid Waste Disposal - Industrial, Incineration, Sludge	50
50300599	Waste Disposal, Solid Waste Disposal - Industrial, Incineration, Fuel Not Classified	31
50410530****	Waste Disposal, Site Remediation, Thermal Destruction, Combustion Unit	2
50410622****	Waste Disposal, Site Remediation, Thermal Desorption, Thermal Desorber: Kiln	2
Total		4731

*May be covered by MWC regulation rather than ICCR, depending on size.

**Sewage sludge is being covered under another regulation and is likely not to be part of ICCR.

***May be covered by MWC regulation rather than ICCR if firing municipal-type waste.

****May be covered by hazardous waste regulations rather than ICCR.

Attachment 5: Presentation Material Illustrating Incinerator Trends

The documents distributed in conjunction with this presentation are not available electronically, but are available in hard-copy format in the EPA docket. The presentation materials depict (with graphs) the relationship between incinerator size, incinerator population and total emissions for the Medical Waste Incinerator source category, which is regulated by the EPA under a separate section 129 rule.

Attachment 6: Draft Information Collection Questionnaires

The questionnaires distributed at the meeting have not been reproduced in this document electronically, but are available in hard-copy format in the EPA docket. The questionnaires not reproduced in this file include the following:

- the draft information collection request (ICR) submitted by EPA to the Office of Management and Budget;
- the draft questionnaire developed by the Boiler Work Group;
- the draft questionnaire developed by the Incinerator Work Group Subgroup #3 (the questionnaire subgroup) after the November 7, 1996 Work Group meeting; and
- the ICCR Information Collection Survey Draft Sampling Plan developed by the Chemical Manufacturers Association.